

# 9273

Diag.Cht. No.905

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

## DESCRIPTIVE REPORT (HYDROGRAPHIC)

Type of Survey ..... HYDROGRAPHIC  
Field No. .... WH-20-1-72  
Office No..... H-9273

### LOCALITY

State ..... VIRGIN ISLANDS  
General Locality .. ST. THOMAS  
Locality ..... SOUTHWEST OF ST. THOMAS HARBOR

1972

CHIEF OF PARTY

C. H. Nixon

### LIBRARY & ARCHIVES

DATE ..... 4/15/76

## HYDROGRAPHIC TITLE SHEET

H-9273

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form,  
filled in as completely as possible, when the sheet is forwarded to the Office.

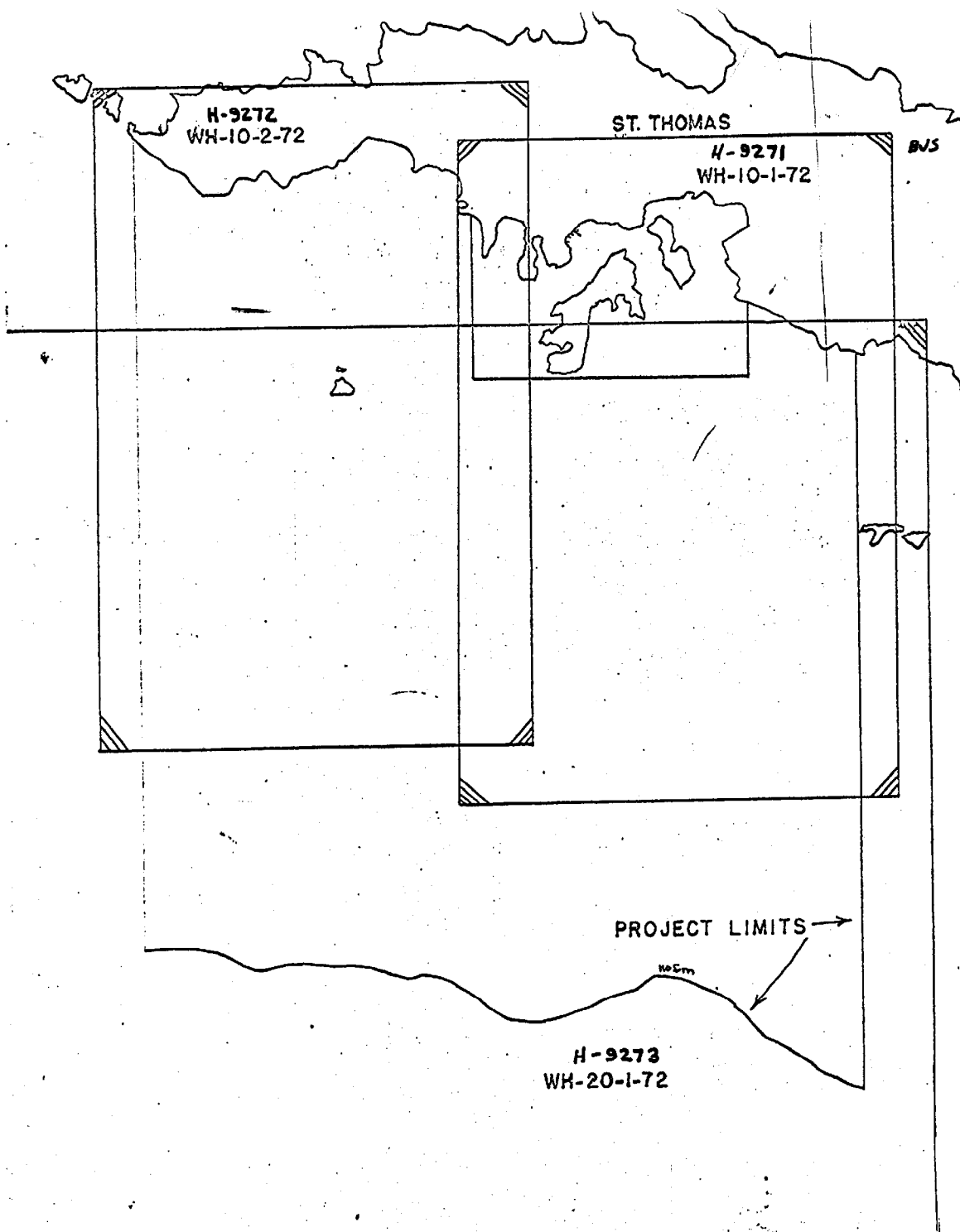
FIELD NO.

WH 20-1-72

State Virgin IslandsGeneral locality St. ThomasLocality ~~Southern coast~~ Southwest of St. Thomas HarborScale 1:20,000Date of survey 2-14-72 -- 3-17-7216 December 1971, Undated Change No. 1, andInstructions dated Change No. 2 dated 16 Feb. 1972 Project No. OPR-423Vessel Ship WHITING & Launches WH-1 & WH-2Chief of party CDR C. H. NixonSurveyed by CDR Nixon, LCDR Burke, LT LeRoy, LTJG Busman, LTJG Yeager, LTJG Hoge,  
ENS Servais, ENS Kaiser, CST HillSoundings taken by echo sounder, ~~XXXXXXXXXX~~Graphic record scaled by Ship's personnelGraphic record checked by Same BJS (AMC)

Protracted by

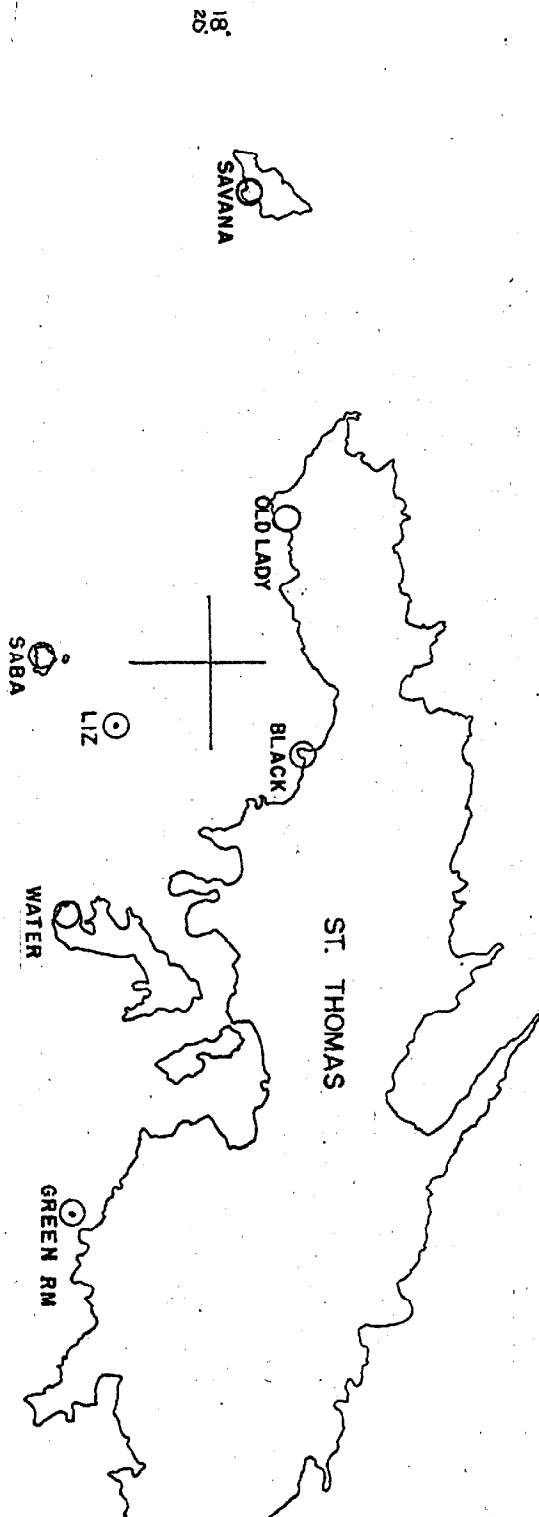
Automated plot by ~~WHITING system~~Soundings penciled by Calcomp 618 AMC  
~~WHITING shipboard system~~Calcomp - 618 AMCSoundings in ~~XXXXXX~~ feet at MLW ~~XXXXXX~~Verified by: B.J. Stephenson  
AMCREMARKS: changes in red by BJS-AMCThe time meridian of this survey was 0°.Applied to stds 9/22/76  
COB



65°  
00'

OPR-423  
1972

SHIP WHITING  
ELECTRONIC CONTROL STATIONS.



SAIL ROCK

BUCK ISLAND  
T-98

Original

DESCRIPTIVE REPORT

To Accompany Hydrographic Survey H-9273

Field No. WH-20-1-72

St. Thomas, Virgin Islands

Scale: 1:20,000

NOAA Ship WHITING

Charles H. Nixon, CDR, NOAA, Commanding

#### A. PROJECT:

This survey was accomplished in accordance with Project Instructions--OPR-423-WH-72, dated December 16, 1971; Change No. 1: Supplement to Instructions, ~~no date~~; and Change No. 2: Supplement to Instructions, dated February 16, 1972.  
Jan. 5, 1972

#### B. AREA SURVEYED:

The area surveyed extends south from 18°18'00"N on the ~~eastern~~ <sup>western</sup> half and 18°16'15"N on the ~~western~~ <sup>eastern</sup> half to 18°10'00"N on the 110 fathom curve, and from 065°02'30" on the west to 064°54'00" on the east. The area included a portion of the prior survey DA 40-1-67; rather than junction with this small piece, the WHITING resurveyed it. BJS

On the north it junctioned with contemporary surveying by the WHITING, sheets WH 10-2-72 (H-9272) and WH 10-1-72 (H-9271). A diagram showing the limits of the various sheets is included in this report. The survey was accomplished between February 14, 1972 and March 17, 1972. The main system of lines was run at 200 meter spacing. The spacing was reduced to 100 meters to develop any features shoaling to near 66 feet. Additional development was done along the axis of scarp at the southern limit of sheet. This work was recorded in fathoms on the Ross and plotted simultaneously in feet on the boatsheet. Due to the steep slope it was necessary to run at reduced speed to adequately delineate the 110 fathom curve. Bottom samples were plotted on a separate overlay.

#### C. SOUNDING VESSEL:

The NOAA Ship WHITING was the sounding vessel through most of the survey. WHITING launches #1 and #2 were used for work on pre-survey review items in the area.

#### D. SOUNDING EQUIPMENT:

The sounding instrument used by the ship was the Ross Model 5000 (544) Fineline Depth Recorder, serial number 1055. Internal calibrations were taken every watch and adjustments made when necessary to bring the trace onto the mark at the initial, the 50 foot mark, the 100 foot mark, the 50 fathom mark, and the 100 fathom mark. The ship's launches used Raytheon Survey Fathometers with the following serial numbers: Launch #1, 37018, and Launch #2, 37019. Velocity correctors were not applied on the boatsheet. The correctors should be applied prior to plotting the smooth sheet. For a table of velocity corrections, see Corrections to Echo Soundings Report. All fathograms were scanned by experienced ship personnel and were subject to a random check scan to insure against error. Velocity correctors were determined by Nansen & TDC data.

#### E. SMOOTH SHEET:

The smooth sheet ~~will be~~ <sup>was</sup> plotted on the Computer Plotter System at the Atlantic Marine Center in Norfolk, Virginia. Position corrections were not applied on the boatsheet. For a table of corrections, see the Electronic Control Report.

# F. CONTROL:

Hydrography for this project was controlled by a super-high frequency, Range-Range positioning system obtained from Del Norte Technology.

Direct readout of distances in meters from each of two shore stations at any one time are obtained. The computer accepts the continuing updates to drive the helmsman's left-right steering indicator. The distances were sampled and recorded at each sounding interval.

See "Electronic Control Report" for 1972 for details of the Del Norte Systems' characteristics and use as a means of control for this hydrographic survey.

During this survey, various combinations of two shore stations were used for control. This variety was used due to the geography of the area surveyed and the characteristics of the system. Location of shore stations for control on this sheet follow:

| <u>NAME OF STATION</u>                   | <u>LATITUDE</u> | <u>LONGITUDE</u> |
|--|-----------------|------------------|
| Buck (Cadastral Survey T-20)(m),<br>1946 | 18°16'48.60"N.  | 64°53'34.82"W.   |
| Saba, 1918-72                            | 18°18'23.12"N.  | 65°00'07.84"W.   |
| Savana                                   | 18°20'19.04"N.  | 65°04'41.68"W.   |
| Water, 1972 (d)                          | 18°18'35.03"N.  | 64°57'26.21"W.   |

BJS

Frequency 9,300 MHz.

Station combinations must be chosen to suit the area of the sheet in which one is working, and such that, when one faces the baseline between two stations from the working area, the station on the left must appear on the left side of the DMU unit, and the station on the right appears on the right side of the DMU unit, otherwise an erroneous plot of positions will be made by the computer system.

Data is labeled with station combinations used and parameter tapes are made for each combination used on this sheet.

Combinations used for this sheet are listed below:

| <u>LEFT</u> | <u>RIGHT</u> |
|-------------|--------------|
| Water       | Buck         |
| Saba        | Buck         |
| Saba        | Water        |
| Savana      | Saba         |

Station locations used were either existing third-order triangulation stations or were located by officers of the WHITING using third-order methods.

Station BUCK was located on Buck Island, station used was Cadastral Survey Mark T-98, G.P. was obtained from Public Works Department of St. Thomas and agreed with position obtained by Ship WHITING using third-order methods for location.

Station SAVANA was located by intersection.

Station WATER, 1972 is on southwestern point of Water Island. Station established and G.P. obtained by third-order traverse methods by officers of the WHITING.

Station SABA is an existing third-order triangulation station established in 1918.

The stations located by ship personnel are not monumented by standard discs, but are marked and recoverable for use as electronic control sites and/or visual signals. Recovery notes for electronic control sites used are filed in field reports of NOAA Ship WHITING, an additional copy will be forwarded to AMC Operations.

#### G. SHORELINE:

None *see HIT report*  
BJS

#### H. CROSSLINES:

Crosslines composed 10.9% of the total length of basic sounding lines. The agreement between crosslines and the main system of lines was excellent.

#### I. JUNCTIONS:

The northern limits of the sheet junctioned with both a contemporary survey by the ship's launches on sheets WH-10-2-72 (H-9272) and WH-10-1-72 (H-9271) and a prior survey sheet WH-5-1-66 (H-8877).

Agreement on the northern edge of the sheet where it junctions with sheets WH 10-2-72, WH 10-1-72, and WH 5-1-66 is good. Depths from the prior survey DA 40-1-67 on the west average about three feet deeper than this year's survey. The application of velocity correctors to the WH 20-1-72 sheet should resolve this discrepancy. Greater discrepancies occasionally occur but are probably due to the fact that the DA 40-1-67 soundings were rounded to the nearest fathom while the WH 20-1-72 soundings are to the nearest foot. Sea swells could contribute to this factor exaggerating the two foot discrepancy.

#### J. COMPARISON WITH PRIOR SURVEYS:

Comparison with H-4651a, a 1:20,000 survey of 1923, show discrepancies with average 5 to 6 feet. Velocity corrections in this area, which averages 100 ft. depths, would account for 3 to 4 feet. Small irregularities, such as coral growth, could easily account for the remainder. *See HIT report.*  
BJS



Comparison with H-4598, 1924 1:40,000, is spotty, particularly in the southern and eastern portions of the sheet. Differences of up to 25 feet occur. Velocity correctors in this area, which averages 130 feet, are 4 to 5 feet. The soundings on the old survey were rounded off to the nearest fathom. This still leaves differences which are difficult to account for. The hydrographer feels comparison with this survey is not particularly meaningful and the discrepancies should be ignored. *see HIT report 8JS*

*H-9273 8JS*  
WH-20-1-72 resurveyed an area included on DA 40-1-67 rather than junction around it. There are no serious discrepancies with the 1967 work. The earlier soundings were rounded off to the nearest fathom. Differences are 2 to 3 feet. *H-9270*

#### PRE SURVEY ITEMS

All depths found during investigation of the following items are based on predicted tides. No velocity correctors have been applied.

The wreck (13 fm rep) charted at latitude  $18^{\circ}17'12''N$  and longitude  $65^{\circ}01'43''W$  was investigated by WHITING launches WH-1 and WH-2 on days 075 and 077. On separate occasions both launches visited this location and ran additional developments to 50 meter spacing and also drifted over the area. No trace of the above charted wreck or any shoal nearby could be found. It is recommended by the hydrographer that this wreck be ~~deleted from the charted~~ as a non-dangerous sunken wreck.

The wreck (British Str. Grinton) in 8 fathoms of water charted at latitude  $18^{\circ}16'45''N$  and longitude  $65^{\circ}00'15''W$  was investigated by WHITING launch WH-1 on day 075. After developing the area to 50 meter spacing and drifting over the area to ensure adequate coverage, the wreck was located in 65 feet of water at latitude  $18^{\circ}16'52''N$  and longitude  $65^{\circ}00'09''W$ . The hydrographer is unable to insure that this is the least depth and recommends retention of charted feature as is.

The 11 fathom dashed circle sounding charted at latitude  $18^{\circ}16'50''N$  and longitude  $65^{\circ}01'08''W$  was confirmed by WH-2 on day 077. This area was developed to 50 meter spacing by WH-2 and later drifted over to better define the shoalest sounding found. In this manner, a <sup>4</sup>69 foot sounding was found at latitude  $18^{\circ}16'48''N$  and longitude  $65^{\circ}01'01''W$ . The feature should remain as charted. *from H-4598 (1924) 8JS*

#### K. COMPARISON WITH THE CHART:

The survey was compared with C&GS Chart 905 (Virgin Islands), 9th edition, May 1, 1971.

Agreement is generally good except in the southeastern portion of the sheet. There are differences averaging 13 feet in this area. This is to be expected if the source of these soundings are H-4598 (see section J).

The differences in the rest of the sheet, which average 2 to 3 feet, can be explained by the fact that these soundings, which were transferred from the 1:100,000 scale chart, were rounded to the nearest fathom.

L. ADEQUACY OF THE SURVEY:

The survey is adequate and complete and should be considered to supersede any prior surveys for charting.

M. AIDS TO NAVIGATION:

None

N. STATISTICS:

| <u>SURVEY VESSEL</u> | <u>NAUTICAL MILES OF<br/>SOUNDING LINES</u> | <u>NO. OF POSITIONS</u> |
|----------------------|---|-------------------------|
| Ship WHITING         | 623.7                                       | 1,862                   |
| Launch #1            | 0.0   | 1                       |
| Launch #2            | <u>0.3</u>                                  | <u>4</u>                |
| TOTAL                | 624.0                                       | 1,867                   |

Area of sheet = 49 square nautical miles.

Number of bottom samples = 23.

O. MISCELLANEOUS:

None

P. RECOMMENDATIONS:

None

Q. REFERENCE TO REPORTS:

Corrections to Echo Soundings

Electronic Control Report)  
Coast Pilot Report (Sent to C3233)  
Chart Investigation Report (Sent to C3233)

10/10/73

U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center

Hourly heights are approved for Form 362

Tide Station Used (NOAA form 7(-12): Hassel Island, St. Thomas

Period: February 1 - March 29, 1972

HYDROGRAPHIC SHEET: H-9271, H-9272, H-9273

OPR: 423

Locality: St. Thomas, Virgin Islands

Plane of reference (mean ~~XXXXX~~ low water): 2.4 feet

Height of Mean High Water above Plane of Reference is 0.92 feet

Remarks:

No correction for time and range, use Hassel Island gage direct.

24  
P.O. CHECKED BY R. Cram  
DATE Oct 9, 1974  
VERIFICATION BR., ANQ

Robert A. Cummings  
Chief, Tides Branch

### TIDE NOTE

Smooth tides for WH-10-2-72 were obtained from a bubbler gage installed at Hassel Island, St. Thomas; latitude 18°20'00"N., longitude 64°56'00"W.

The gage was installed on 18 January 1972 and was in operation for the duration of hydrographic operations.

Time meridian was 0°W (GMT).

All soundings plotted were based on predicted tides taken from Galveston Texas, with appropriate correctors.

The marigram and hourly heights, which were scaled by ship's personnel, were forwarded to Rockville for verification. WHITING personnel also logged the smooth tides and a printout of them is included in this report.

A copy of the letter to the Chief, Tides Division is also included in this report. The letter requests a verification of the hourly heights, a determination of the MLW on the tide staff and any recommendation on zoning.

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**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL OCEAN SURVEY  
NOAA Ship WHITING  
439 W. York St.  
Norfolk, Va. 23510

Date : November 28, 1972

Reply to Attn. of:

To : Chief, Tides Section  
Attention C331

From : Commanding Officer  
NOAA Ship WHITING

Subject: Tidal Data Virgin Islands, Request for

This request for verification and zoning information for Project OPR-WH-492-72 is sent in accordance with Ch.03 Sec 21, AMC Manual. The field and registry numbers of the boat sheets involved are as follows: WH-10-1-72, H-9271; WH-10-2-72, H-9272; and WH-20-1-72, H-9273.

1. Enclosed are the original forms 362, for the hours of hydrography for the ship installed bubbler gage at Hassel Island, St. Thomas, V. I. Please verify these hourly heights and send them and the value of MLW on the tide staff to: AMC, Processing Division, CAM 3.

2. The AMC Processing Division will plot the smooth sheets for the above surveys. Also furnish them any recommended zoning or time corrections to be applied from the shore outward.

*Charles H. Nixon*

Charles H. Nixon  
CDR, NOAA

CAM3-1  
1/31/74

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

1. Project No. OPR-423 4. Requested By Verification Branch  
2. Reg. No. H-9273 5. Ship or Office AMC  
3. Field No. WH-20-1-72 6. Date Required ASAP

7. Polyconic ☒ Modified Transverse Mercator ☐

8. Central Meridian of Projection 65 ° 00 ' 00 "

9. Survey Scale: 1: 20,000

10. Size of Sheet (check one):

36 x 54 ☐ 36 x 60 ☐ Other ☒ Specify 36x42

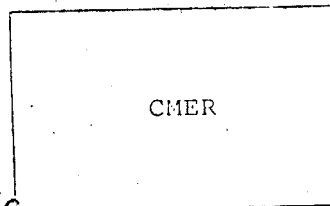
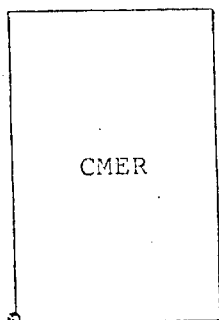
11. Sheet Orientation (check one):

NYX = 1 ☐

NYX = 0 ☒

N

N



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)

Latitude 18 ° 09 ' 30 "

Longitude 65 ° 03 ' 30 "

13. G.P.'s of triangulation and/or signals attached ☐

14. Material Desired: Tracing Paper ☐ Mylar ☐

Smooth Sheet ☒ Other ☐ Specify \_\_\_\_\_

15. Remarks: \_\_\_\_\_

*Smith SA* FILED BY BJS  
DATE 2-4-76  
TELETYPE UNIT, LSC

CAM 1-  
1/31/74

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

1. Project # OBR-423 2. Reg. # H-9273 3. Field # WH-20-1-72  
4. Type of Control: Del Norte (Hi-Fix, Raydist, EPI, etc.)  
5. Frequency 9,300 MHz (for conversion of electronic lanes to meters)  
6. Mode of Operation (check one):

Range-Range ☒

Range-Visual ☐

Range One (R<sub>1</sub>)  
Station I.D. 'SABA (402)  
Range Two (R<sub>2</sub>)  
Station I.D. Water (408)

|       |           |           |              |
|-------|-----------|-----------|--------------|
| Lat.  | <u>18</u> | <u>18</u> | <u>23.12</u> |
| Long. | <u>65</u> | <u>00</u> | <u>07.84</u> |
| Lat.  | <u>18</u> | <u>18</u> | <u>35.03</u> |
| Long. | <u>64</u> | <u>57</u> | <u>26.21</u> |

Hyperbolic (3-station) ☐

Hyper-Visual ☐

Slave One  
Station I.D. \_\_\_\_\_  
Master  
Station I.D. \_\_\_\_\_  
Slave Two  
Station I.D. \_\_\_\_\_

|       |       |       |       |
|-------|-------|-------|-------|
| Lat.  | _____ | _____ | _____ |
| Long. | _____ | _____ | _____ |
| Lat.  | _____ | _____ | _____ |
| Long. | _____ | _____ | _____ |
| Lat.  | _____ | _____ | _____ |
| Long. | _____ | _____ | _____ |

7. Location of Survey:

Range-Range ☒

Imagine an observer is standing at R<sub>1</sub> Station and looking directly at R<sub>2</sub> (check one):

Survey area is to observer's Right ☒ A=3

Survey area is to observer's Left ☐ A=1

Hyperbolic ☐

Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8. ☐ This form is submitted as an aid in preparing a boat sheet.

☐ This form applies to all data on this survey.

☒ This form applies to part of the data on this survey.

| Vessel | From  | To    | Position Numbers |
|--------|-------|-------|------------------|
| EDP #  | Time  | Day   | (inclusive)      |
| _____  | _____ | _____ | _____            |
| _____  | _____ | _____ | _____            |
| _____  | _____ | _____ | _____            |

P.O. CHECKED BY BJS to \_\_\_\_\_  
DATE 2-4-76 to \_\_\_\_\_  
VERIFICATION BY AMS to \_\_\_\_\_

9. Remarks: Listing for Item 8 on next page.

CW13-2  
1/31/74

ATLANTIC MARINE CENTER  
ELECTRONIC CONTROL PARAMETERS

1. Project # OPR-423 2. Reg. # H-9273 3. Field # WH-20-1-72  
4. Type of Control: Del Norte (Hi-Fix, Raydist, EPI, etc.)  
5. Frequency 9,300 MHz (for conversion of electronic lanes to meters)  
6. Mode of Operation (check one):

Range-Range ☒

Range-Visual ☐

Range One ( $R_1$ )  
Station I.D. SABA (402)  
Range Two ( $R_2$ )  
Station I.D. Buck (413)

|       |             |           |                |
|-------|-------------|-----------|----------------|
| Lat.  | <u>18</u> ° | <u>18</u> | <u>23.12</u> " |
| Long. | <u>65</u> ° | <u>00</u> | <u>07.84</u> " |
| Lat.  | <u>18</u> ° | <u>16</u> | <u>48.60</u> " |
| Long. | <u>64</u> ° | <u>53</u> | <u>34.82</u> " |

Hyperbolic (3-station) ☐

Hyper-Visual ☐

Slave One  
Station I.D. \_\_\_\_\_  
Master  
Station I.D. \_\_\_\_\_  
Slave Two  
Station I.D. \_\_\_\_\_

|       |        |       |        |
|-------|--------|-------|--------|
| Lat.  | _____° | _____ | _____" |
| Long. | _____° | _____ | _____" |
| Lat.  | _____° | _____ | _____" |
| Long. | _____° | _____ | _____" |
| Lat.  | _____° | _____ | _____" |
| Long. | _____° | _____ | _____" |

7. Location of Survey:

Range-Range ☒

Imagine an observer is standing at  $R_1$  Station and looking directly at  $R_2$  (check one):

Survey area is to observer's Right ☒  $A=0$

Survey area is to observer's Left ☐  $A=1$

Hyperbolic ☐

Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8. ☐ This form is submitted as an aid in preparing a boat sheet.

☐ This form applies to all data on this survey.

☒ This form applies to part of the data on this survey.

| Vessel | From | To  | Position Numbers |
|--------|------|-----|------------------|
| EDP #  | Time | Day | (inclusive)      |

|       |       |       |                |
|-------|-------|-------|----------------|
| _____ | _____ | _____ | _____ to _____ |
| _____ | _____ | _____ | _____ to _____ |
| _____ | _____ | _____ | _____ to _____ |

9. Remarks: Listing for Item 8 on next page.



CA-13-2  
1/31/74

ATLANTIC MARINE CENTER  
ELECTRONIC CONTROL PARAMETERS

1. Project # OPR-423 2. Reg. # H-9273 3. Field # WH-20-1-72  
4. Type of Control: Del Norte (Hi-Fix, Raydist, EPI, etc.)  
5. Frequency 9,300 MHz (for conversion of electronic lanes to meters)  
6. Mode of Operation (check one):

Range-Range ☒

Range-Visual ☐

Range One (R<sub>1</sub>)  
Station I.D. Savanna (422)  
Range Two (R<sub>2</sub>)  
Station I.D. SABA (402)

|       |    |   |    |   |       |   |
|-------|----|---|----|---|-------|---|
| Lat.  | 18 | ° | 20 | ' | 19.04 | " |
| Long. | 65 | ° | 04 | ' | 41.68 | " |
| Lat.  | 18 | ° | 18 | ' | 23.12 | " |
| Long. | 65 | ° | 00 | ' | 07.84 | " |

Hyperbolic (3-station) ☐

Hyper-Visual ☐

Slave One  
Station I.D. \_\_\_\_\_  
Master  
Station I.D. \_\_\_\_\_  
Slave Two  
Station I.D. \_\_\_\_\_

|       |   |  |  |   |
|-------|---|--|--|---|
| Lat.  | ° |  |  | " |
| Long. | ° |  |  | " |
| Lat.  | ° |  |  | " |
| Long. | ° |  |  | " |
| Lat.  | ° |  |  | " |
| Long. | ° |  |  | " |

7. Location of Survey:

Range-Range ☒

Imagine an observer is standing at R<sub>1</sub> Station and looking directly at R<sub>2</sub> (check one):

Survey area is to observer's Right ☒ A=0

Survey area is to observer's Left ☐ A=1

Hyperbolic ☐

Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8. ☐ This form is submitted as an aid in preparing a boat sheet.  
☐ This form applies to all data on this survey.  
☒ This form applies to part of the data on this survey.

| Vessel | From | To  | Position Numbers |
|--------|------|-----|------------------|
| EDP #  | Time | Day | (inclusive)      |

|       |       |       |                                      |
|-------|-------|-------|--------------------------------------|
| _____ | _____ | _____ | P.O. CHECKED BY <u>BJS</u> to _____  |
| _____ | _____ | _____ | <u>2-4-74</u> to _____               |
| _____ | _____ | _____ | VERIFICATION BY, <u>AMC</u> to _____ |

9. Remarks: Listing for Item 8 on next page.

Signal List OPR-423  
H-9273 (WH-20-1-72)

Del-Norte Stations

|     |             |                |                 |
|-----|-------------|----------------|-----------------|
| 413 | Buck (T-98) | 18° 16' 48.60" | 064° 53' 34.82" |
| 402 | SABA        | 18° 18' 23.12" | 065° 00' 07.84" |
| 408 | Water       | 18° 18' 35.03" | 064° 57' 26.31" |
| 422 | Savana      | 18° 20' 19.04" | 065° 04' 41.68" |

Reference Station

|      |           |                |                 |
|------|-----------|----------------|-----------------|
| SABA | 1918-1972 | 18° 18' 23.12" | 065° 00' 07.84" |
|------|-----------|----------------|-----------------|

FILE CHECKED BY BJS  
DATE 2-4-76  
VERIFICATION PR., ANT

Project OPR-423-WH-72, Virgin Islands  
WH-20-1-72, H-9273  
Control Data

Ship Whiting

| Julian Day | pos.#<br>from to | time<br>from to | Stations: Slave 1 | Slave 2 |
|------------|------------------|-----------------|-------------------|---------|
| 045 & 046  | 5588-5853        | 211000-074851   | Saba              | Buck    |
| 046 & 047  | 5854-6228        | 081701-235951   | "                 | "       |
| 047        | 6229-6284        | 000031-014811   | "                 | "       |
| 054        | 6268-6359        | 183030-215302   | "                 | Water   |
| 054 & 055  | 6360-6503        | 215001-023337   | "                 | Buck    |
| 055        | 6504-6661        | 025200-125951   | "                 | "       |
| 055        | 6702-6771        | 144521-173041   | "                 | "       |
| 060 & 061  | 6772-6894        | 044809-003730   | "                 | Water   |
| 061        | 6898-7095        | 010400-100121   | "                 | Buck    |
| 063        | 7102-7105        | 235330-235950   | Savanna           | Saba    |
| 064        | 7102-7427        | 000010-162400   | "                 | "       |

Ship Whiting (Bottom Samples)

|     |           |               |         |       |
|-----|-----------|---------------|---------|-------|
| 59  | 9000-9011 | 220000-235000 | Saba    | Water |
| 060 | 9012-9018 | 001000-011000 | "       | "     |
| 074 | 9020-9023 | 100000-103000 | Savanna | Saba  |

Launch 1

|     |            |        |         |      |
|-----|------------|--------|---------|------|
| 075 | 7428(d.p.) | 153154 | Savanna | Saba |
|-----|------------|--------|---------|------|

Launch 2

|     |           |               |         |      |
|-----|-----------|---------------|---------|------|
| 077 | 7447-7450 | 124900-125750 | Savanna | Saba |
|-----|-----------|---------------|---------|------|

Day 60 & 61  
133130-101-  
Day 61-  
000752-101  
SABA-Buck  
were used  
(FLS Verification)  
BJS

# SIGNAL TAPE LISTING OPR-423

401 18 16 4857 064 53 3469 Buck ✓  
 402 18 18 2312 065 00 0784 Saba ✓  
 403 18 19 4597 064 57 5166 Brush  
 404 18 19 3947 064 55 5884 Mast  
 405 18 20 4745 064 56 0194 St. Thomas Rear Range  
 406 18 19 4944 064 51 3431 Benner  
 407 18 20 3215 064 55 2806 Blue  
 408 18 18 3503 064 57 2621 Water ✓  
 409 18 17 0680 065 06 0415 Sail Rock  
 410 18 13 5974 064 51 0901 Top  
 411 18 18 4258 064 54 3129 Green  
 412 18 19 1036 064 56 2684 Sprat  
 413 18 16 4860 064 53 3482 T-98  
 414 18 21 2801 065 01 2878 Vor  
 415 18 21 1634 064 58 3383 Radio Mast  
 416 18 20 2178 065 05 0017 Savana Light  
 417 18 20 5044 064 59 0964 Black  
 418 18 18 5648 065 13 4014 Culebrita Light  
 419 18 19 0454 064 59 2406 Cactus  
 420 18 19 0877 064 59 2573 Liz  
 421 18 20 3691 065 01 3522 Old Lady  
 422 18 20 1904 065 04 4168 Savana ✓

TC/TI TAPE SHIP

PROJECT OPR-423-WH-72 , VIRGIN ISLANDS

WH-20<sup>4-</sup>-72, H-9273

TC/TI TABLE NOAA Ship WHITING

000000 0 0008 000<sup>3</sup>4 045 293000 009273   
000000 0 0014 0003 056 293000 009273  
133130 0 0014 0005 060 293000 009273  
203523 0 0008 0005 060 293000 009273  
010320 0 0014 0005 061 293000 009273  
081340 0 0008 0005 061 293000 009273  
235340 0 0014 0005 073 293000 009273  
144500 0 0008 0005 073 293000 009273

P.O. CHECKED BY R. Cram  
DATE Oct 9 1974  
VERIFICATION BR., ANC

Tc/Ti LAUNCH I, WH-20-1-72, H-9273

000000 0 0002 0006 075 293100 009273

P.O. CHECKED BY R. Cram  
DATE Oct 9, 1974  
VERIFICATION PR., ANC

Velocity Table # 6, LAUNCH 1, H-9273

0000058 0 0000 0006 000 293100 009273

000005 0 0002

000136 0 0004

000176 0 0006

000214 0 0008

000253 0 0010

000293 0 0012

000332 0 0014

000371 0 0016

000409 0 0018

000447 0 0020

000485 0 0022

000524 0 0024

000564 0 0026

000602 0 0028

000640 0 0030

000680 0 0032

000718 0 0034

000758 0 0036

000797 0 0038

000836 0 0040

P.Q. CHECKED BY R. Cram  
DATE Oct 9 1974  
VERIFICATION ER., AMC



Velocity Table #6 LAUNCH I, H-9273, Cont.

000876 0 0042

000913 0 0044

000952 0 0046

000991 0 0048

001638 0 0060

001938 0 0072

002238 0 0084

000000 0 0000

P.O. CHECKED BY R. Cram  
DATE Oct 9, 1974  
VERIFICATION BR., AMC

*Velocity Table #6, LAUNCH 2, H-9273*

000058 0 0000 0006 000 293200 009273

000085 0 0002

000136 0 0004

000176 0 0006

000214 0 0008

000253 0 0010

000293 0 0012

000332 0 0014

000371 0 0016

000409 0 0018

000447 0 0020

000485 0 0022

000524 0 0024

000564 0 0026

000602 0 0028

000640 0 0030

000680 0 0032

000718 0 0034

000758 0 0036

000797 0 0038

000836 0 0040

000876 0 0042

000913 0 0044

000952 0 0046

000991 0 0048

001638 0 0060

P.O. CHECKED BY R. Cram  
DATE Oct 9, 1974  
VERIFICATION BR., AMC

Velocity Table #6, LAUNCH 2, H-9273 Cont.

001938 0 0072

002238 0 0084

000000 0 0000

P.O. CHECKED BY R. Cram  
DATE Oct 9, 1974  
VERIFICATION BR., AMC

APPROVAL SHEET

Submitted by

*James R. Servais*

James Servais  
ENS NOAA

supervision of field and office work on this hydrographic survey was continuous on a day to day basis to insure completeness of the survey and that the work done was in accordance with the instructions.

Approved/Forwarded

*Charles H. Nixon*

Charles H. Nixon  
CDR NOAA  
Commanding Officer, NOAA Ship WHITING

9273

## GEOGRAPHIC NAMES

| Name on Survey  | A<br>ON CHART NO. | B<br>ON PREVIOUS SURVEY<br>NO. | C<br>ON U.S. QUADRANGLE<br>MAPS | D<br>FROM LOCAL<br>INFORMATION | E<br>ON LOCAL MAPS | F<br>P.O. GUIDE OR MAP | G<br>RANDOMLY<br>ATLAS | H<br>U.S. LIGHT LIST | K  |
|-----------------|-------------------|--------------------------------|---------------------------------|--------------------------------|--------------------|------------------------|------------------------|----------------------|----|
| BUCK ISLAND     |                   |                                |                                 |                                |                    |                        |                        |                      | 1  |
| CAPELLA ISLANDS |                   |                                |                                 |                                |                    |                        |                        |                      | 2  |
| FLAMINGO POINT  |                   |                                |                                 |                                |                    |                        |                        |                      | 3  |
| MAR CARIBE      |                   |                                |                                 |                                |                    |                        |                        |                      | 4  |
| SABA ISLAND     |                   |                                |                                 |                                |                    |                        |                        |                      | 5  |
| WATER ISLAND    |                   |                                |                                 |                                |                    |                        |                        |                      | 6  |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 7  |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 8  |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 9  |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 10 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 11 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 12 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 13 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 14 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 15 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 16 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 17 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 18 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 19 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 20 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 21 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 22 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 23 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 24 |
|                 |                   |                                |                                 |                                |                    |                        |                        |                      | 25 |

Approved

Chas. E. Harrington

Staff Geographer - 651x2

13 July 1976

**HYDROGRAPHIC SURVEY STATISTICS**  
**HYDROGRAPHIC SURVEY NO. H-9273**

WH-20-1-72

**RECORDS ACCOMPANYING SURVEY:** To be completed when survey is registered.

| RECORD DESCRIPTION  |                  | AMOUNT               | RECORD DESCRIPTION |             | AMOUNT        |                                |
|---|------------------|----------------------|--------------------|-------------|---------------|--------------------------------|
| SMOOTH SHEET & 2-Overlays   |                  | 1                    | BOAT SHEETS        |             | 1             |                                |
| DESCRIPTIVE REPORT  |                  | 1                    | OVERLAYS           |             | 1             |                                |
| DESCRIPTION   | DEPTH RECORDS    | HORIZ. CONT. RECORDS | PRINTOUTS          | TAPE ROLLS  | PUNCHED CARDS | ABSTRACTS/<br>SOURCE DOCUMENTS |
| ENVELOPES   | 1                |                      |                    |             |               |                                |
| CAHIERS   | 1 with P/O.      |                      | 1                  |             |               |                                |
| VOLUMES   |                  |                      |                    |             |               |                                |
| BOXES   |                  |                      | 1                  |             |               |                                |
| T-SHEET PRINTS (List)   |                  |                      |                    |             |               |                                |
| T1194100T*1194200T*11943  |                  |                      |                    |             |               |                                |
| SPECIAL REPORTS (List)  |                  |                      |                    |             |               |                                |
| NONE  |                  |                      |                    |             |               |                                |
| OFFICE PROCESSING ACTIVITIES  |                  |                      |                    |             |               |                                |
| The following statistics will be submitted with the cartographer's report on the survey |                  |                      |                    |             |               |                                |
| PROCESSING ACTIVITY   | AMOUNTS          |                      |                    |             | TOTALS        |                                |
|   | PRE-VERIFICATION | VERIFICATION         | REVIEW             |             |               |                                |
| POSITIONS ON SHEET  |                  |                      |                    |             | 1867          |                                |
| POSITIONS CHECKED   |                  | 187                  |                    |             |               |                                |
| POSITIONS REVISED   |                  | 75                   |                    |             |               |                                |
| DEPTH SOUNDINGS REVISED   |                  | 300                  |                    |             |               |                                |
| DEPTH SOUNDINGS ERRONEOUSLY SPACED  |                  |                      |                    |             |               |                                |
| SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED  |                  |                      |                    |             |               |                                |
|   | TIME (MANHOURS)  |                      |                    |             |               |                                |
| TOPOGRAPHIC DETAILS   |                  | 8                    |                    |             |               |                                |
| JUNCTIONS   |                  | 8                    |                    |             |               |                                |
| VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS  |                  | -                    |                    |             |               |                                |
| SPECIAL ADJUSTMENTS   |                  | -                    |                    |             |               |                                |
| ALL OTHER WORK  |                  | 154                  |                    |             |               |                                |
| TOTALS  |                  | 170                  | 32                 |             |               |                                |
| PRE-VERIFICATION BY   |                  | BEGINNING DATE       |                    | ENDING DATE |               |                                |
| F.L. Saunders, M.W. Johnson   |                  | 06/17/74             |                    | 06/19/75    |               |                                |
| VERIFICATION BY   |                  | BEGINNING DATE       |                    | ENDING DATE |               |                                |
| B.J. Stephenson   |                  | 01/07/75             |                    | 03/03/76    |               |                                |
| REVIEW BY   |                  | BEGINNING DATE       |                    | ENDING DATE |               |                                |
| AMC Hydrographic Inspection Team  |                  | 03/19/76             |                    | 03/19/76    |               |                                |

Q.C. - Romeburg 27 hr 5/20/70

U.S. G.P.O. 1972-769-562/489 REG.#6

ATLANTIC MARINE CENTER  
APPROVAL SHEET  
FOR  
AUTOMATED SURVEY H-9273

- A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/~~has not~~ been made. A new final sounding printout has/~~has not~~ been made.

Date: 15 March 1976

Signed:

William L. Jones

Title: Chief, Verification Branch

- B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic and AMC Manuals. Exceptions are listed in the verifier's report.

Date: 15 March 1976

Signed:

C. O. Huth

Title: Chief, Processing Division

H-9273

Information for Future Presurvey Reviews

Investigations by divers or wire-drag operations would be desirable at some future opportune time to ascertain least depths on the following:

| <u>Item</u>        | <u>Latitude</u> | <u>Longitude</u> |
|--------------------|-----------------|------------------|
| a. wreck (67 feet) | 18°16.86'       | 65°00.15'        |
| b. shoal (71 feet) | 18°15.78'       | 64°56.67'        |
| c. shoal (67 feet) | 18°16.81'       | 65°01.08'        |
| d. shoal (77 feet) | 18°16.00'       | 64°54.30'        |

| <u>Position Index</u> |              | <u>Bottom Change</u> | <u>Use</u>   | <u>Resurvey</u> |
|-----------------------|--------------|----------------------|--------------|-----------------|
| <u>Lat.</u>           | <u>Long.</u> | <u>Index</u>         | <u>Index</u> | <u>Cycle</u>    |
| 181                   | 0650         | 3                    | 2            | 50 years        |
| 181                   | 0651         | 1                    | 2            | 50 years        |



HYDROGRAPHIC INSPECTION TEAM

ATLANTIC MARINE CENTER

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO.: H-9273

FIELD NO.: WH-20-1-72

GENERAL LOCALITY and SPECIFIC LOCATION

St. Thomas, South Coast, Virgin Island  
Continental Shelf

SURVEYED: February 14, 1972 through March 17, 1972

PROJECT NO.: OPR-423

SCALE: 1:20,000

SOUNDINGS BY: Ross Model 5000 Finline  
Raytheon Depth Recorder

CONTROL: Del-Norte  
Range-Range

Chief of Party ..... CDR Nixon  
Surveyed by ..... LCDR Burke  
..... LT Leroy  
..... LTJG Busman  
..... LTJG Yeager  
..... LTJG Hoge  
..... ENS Servais  
..... ENS Kaiser  
..... CST Hill  
Automated Plot by ..... Calcomp Plotter #618 (AMC)  
Verified and Inked by ..... B.J. Stephenson

1. Description of the Area

This survey covers an irregular area south of St. Thomas Island. The area surveyed extends south from latitude 18° 18' 00"N, on the western half and latitude 18° 16' 15"N on the eastern half to latitude 18° 10' 00"N on the 110 fathom curve, and from longitude 65° 02' 30"W on the west to longitude 64° 54' 00"W on the east. The bottom is predominantly coral with traces of sand, and gradually slopes to the Continental Shelf.

2. Control and Shoreline  
Type-Source-Origin

The control is adequately described in the Descriptive Report.

The shoreline (HWL only) was reduced by an overhead projector and is applied on Buck, Water, and Saba Islands. The shoreline originates with unreviewed Class I manuscripts T-12941, T-12942, and T-12948 (1:10,000),

flowm November 1971, field edit February 1975, final compilation August 1975.

### 3. Hydrography

A. Crossings: Depths at crossings are in good agreement.

B. Depth Curves: The usual depth curves are adequately delineated. Several brown curves were added to better delineate isolated features.

C. Developments: The development of the bottom configuration and the investigation of least depths and wrecks are considered adequate, with the exception of an area in the Northeast corner of the Sheet, where a 77 foot sounding was found on the regular lines in latitude  $18^{\circ} 16.0'N$ , longitude  $64^{\circ} 54.3'W$ . Additional lines were not run to determine if this was the least depth.

### 4. Condition of the Survey

The sounding records, automated plotting and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, supplemented by the Atlantic Marine Center Manual.

### 5. Junctions

An adequate junction was effected with the following contemporary surveys:

H-9352 (1973) and H-9353 (1973) on the east  
H-9271 (1972) and H-9272 (1972) on the north

No contemporary surveys join the present survey on the west and south.

### 6. Comparison

#### A. Prior Surveys:

H-4651a (1923) 1:20,000 - The prior survey covers the Northern portion of the present survey. Comparison with the present survey reveals that there are scattered indication of stable depths; however the present depths are as much as ten feet shoaler in the vicinity of the 120 foot curvey

H-4598 (1924) 1:40,000 - The prior survey covers the Southern portion of the present survey. Comparison with the present survey reveals that there are scattered indications of stable depths; however there are areas with differences as much as  $\pm 18$  feet. The following could easily account for some of these discrepancies:

(a) Velocity corrections from four to thirty-nine feet.

- (b) Less detailed and accurate methods employed on prior surveys.
- (c) Soundings on H-4598 were in fathoms.

H-9270 (1967) 1:40,000 - There are not enough soundings from this survey that fall on the present survey to make a detailed comparison; however the few soundings that do fall on the present survey are in good agreement.

**B. Wire Drag: H-4651b (1924) 1:20,000**

This Wire Drag survey covers the northern portion of the present survey, and all differences are discussed under the chart comparison section of this report. *Two soundings, 71 feet in lat. 18° 51' 18", long. 64° 56' 61" and 67 feet in lat. 18° 46' 12", long. 65° 01' 12" were not depicted on the present survey and were carried forward.*

C. Published Chart #25641 (formerly C&GS 905), 13th edition, dated May 24, 1975.

**(a) Hydrography**

The charted hydrography originates with the previously discussed prior surveys, ~~the boat sheet of the present survey and a few~~ and numerous isolated depths from 18 to 20 fathoms, which according to the Pre-survey Review originated with British Admiralty Charts. The depths from the British Admiralty Charts have an unknown degree of reliability. The following is a list of the charted depths, along with the general depth on the Smooth Sheet for the corresponding area:

| <u>Charted Depths</u> | <u>Approximate Latitude and Longitude</u> | <u>General Depth on Smooth Sheet Approx. Same Area</u> |
|-----------------------|---|--|
| 19 fms (114 ft)       | 18°13'21"N, 65°02'15"W                    | 125 ft-Boat sheet of present survey                    |
| 20 fms (120 ft)       | 18°13'27"N, 65°01'51"W                    | 127 ft- " " " "  |
| 20 fms (120 ft)       | 18°13'24"N, 65°01'24"W                    | 125 ft- " " " "  |
| 20 fms (120 ft)       | 18°14'24"N, 65°01'27"W                    | 131 ft-H-4598 (1924)                                   |
| 20 fms (120 ft)       | 18°13'36"N, 65°00'06"W                    | 128 ft-No such edg charted                             |
| 20 fms (120 ft)       | 18°14'57"N, 65°00'12"W                    | 129 ft-H-4598 (1924)                                   |
| 19 fms (114 ft)       | 18°14'36"N, 64°59'54"W                    | 132 ft   |
| 18 fms (108 ft)       | 18°14'27"N, 64°59'03"W                    | 131 ft   |
| 18 fms (108 ft)       | 18°14'27"N, 64°58'24"W                    | 126 ft   |
| 20 fms (120 ft)       | 18°13'12"N, 64°58'27"W                    | 127 ft-H-4598 (1924)                                   |
| 20 fms (120 ft)       | 18°13'33"N, 64°58'27"W                    | 133 ft- " "  |
| 20 fms (120 ft)       | 18°13'00"N, 64°58'27"W                    | 135 ft- " "  |
| 20 fms (120 ft)       | 18°12'57"N, 64°57'42"W                    | 134 ft- " "  |
| 20 fms (120 ft)       | 18°11'57"N, 64°58'00"W                    | 127 ft-Boat sheet of present survey                    |
| 16 fms (096 ft)       | 18°11'24"N, 64°57'42"W                    | 103 ft- " " " "  |
| 19 fms (114 ft)       | 18°11'48"N, 64°57'27"W                    | 128 ft- " " " "  |
| 19 fms (114 ft)       | 18°11'33"N, 64°57'10"W                    | 124 ft- " " " "  |
| 19 fms (114 ft)       | 18°11'57"N, 64°56'58"W                    | 120 ft- " " " "  |
| 20 fms (120 ft)       | 18°11'45"N, 64°56'36"W                    | 112-116 ft-H-4598 (1924)                               |

| <u>Charted Depths</u>   | <u>Approximate Latitude and Longitude</u> | <u>General Depth on Smooth Sheet Approx. Same Area</u> |
|---|---|--|
| 18 fms (108 ft)   | 18°15'00"N, 64°56'48"W                    | 132 ft - No such sdg charted                           |
| 20 fms (120 ft)   | 18°14'09"N, 64°56'21"W                    | 139 ft   |
| 20 fms (120 ft)   | 18°14'24"N, 64°55'19"W                    | 137 ft   |
| 18 fms (108 ft)   | 18°14'42"N, 64°53'57"W                    | 122 ft - H-4743 (1923-24)                              |
| <i>Conflicting prior depths are of questionable accuracy and should be disregarded.</i> |   |  |
| (b) Attention is directed to the following Pre-survey items:                            |   |  |

(1) The wreck (13 fms reported) charted in latitude 18° 17' 12"N, longitude 65° 01' 43"W was investigated by NOAA Ship WHITING, Launches WH-1 and WH-2 on days 075 and 077. On separate occasions both launches visited this location and ran additional developments to 50 meter spacing and also drifted over the area. No trace of the above wreck or any shoal nearby could be found. It is recommended that the wreck be ~~removed from the charted~~ as a *non dangerous sunken wreck.*

(2) The wreck (British Steamer Grinton) in eight fathoms of water charted in latitude 18° 16' 45"N, longitude 65° 00' 15"W was investigated by the NOAA Ship WHITING, Launch WH-1 on day 075. After developing the area to 50 meter spacing and drifting over the area to ensure adequate coverage, a least depth of ~~70~~ feet was found at latitude 18° 16' 53"N, longitude 65° 00' 05"W, position number 7428. It is recommended that the feature be retained on the chart ~~in but addition to the 70 foot sounding found on present survey.~~ *repositioned to agree with the present survey.*

(3) The eleven fathom sounding charted in latitude 18° 16' 54"N, longitude 65° 01' 08"W originated from H-4651b (1924)WD, 1:20,000, as a grounding. The NOAA Ship WHITING, Launch WH-2 investigated the area ~~by developing the area to 50 meter line~~ *100 meters to the southeast of the 11 fm sdg with* spacing and later drifting over to better define the shoalest sounding. ~~In this manner the above feature was disproved.~~ *However the 11 fm sounding* A 72 foot sounding was found in latitude 18° 16' 48"N, longitude 65° 00' 01"W, which is shown on H-4651b (1924) as a 79 foot hang. ~~It is recommended that the eleven fathom sounding be deleted and the 72 foot (12 fms) sounding be plotted on the chart.~~ *retained as charted*

Except as noted above, the present survey is adequate to supersede the charted hydrography within the common area.

(c) Aids to Navigation

There are no aids to navigation in the area of the present survey.

7. Compliance With Instructions

This survey does comply with the Project Instructions.

8. Additional Field Work

This is an excellent basic survey. Additional field work is not recommended.

9. Hydrographic Inspection Team Comments


Hydrographic Inspection Team comments are included within this report and Verification deficiencies found, if any, have been corrected on the Smooth Sheet.

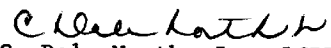
## Additional Notes for H-9273


The hydrographer failed to forward the tapes for the development lines run during the investigation of the Pre-survey Review Items. This caused additional work on the personnel of the Verification Branch. The developments have been plotted on separate overlays, and information has been listed in the sounding printout under excess level number nine.

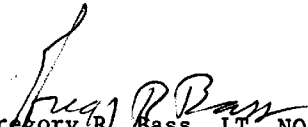
Approval Sheet for Survey H-9273

Examined and Approved:  
Hydrographic Inspection Team  
Date: March 26, 1976

  
CAPT Ronald M. Buffington, NOAA  
Chief, Operations Division


  
C. Dale North, Jr., LCDR, NOAA  
Chief, Processing Division

  
CDR Jeffrey G. Carlen, NOAA  
Chief, Coastal Mapping Division

  
Gregory R. Bass, LT, NOAA  
Chief, Electronic Data Branch

  
William L. Jonns  
Chief, Verification Branch

Approved/Forwarded

  
Alfred C. Holmes  
RADM, NOAA  
Director, Atlantic Marine Center



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SURVEY  
Rockville, Md. 20852

C352

May 20, 1976

*a. J. Patrick*  
TO: A. J. Patrick  
Chief, Marine Surveys Division

THRU: Chief, Quality Control Branch

FROM: D. J. Romesburg *D. J. Romesburg*  
Quality Evaluator

SUBJECT: Quality Control Report for H-9273 (1972), Virgin Islands,  
St. Thomas, Southwest of St. Thomas Harbor

A quality control inspection of H-9273 was accomplished with respect to data acquisition, development of least depths and bottom configuration, adequacy of junctions and sounding line crossings, cartographic presentation of data, smooth plotting, verification, and decisions and actions taken by the verifier.

The following deficiencies are noted:

1. The name of the electronic positioning system utilized on the survey need not be shown on the smooth sheet. The proper symbolization and annotation of control stations are discussed under section 7.3.3 of the Provisional Manual.
2. The verifier's report under "Control and Shoreline" gave more information than necessary regarding shoreline origin. The scale of the manuscript and its final compilation date need not be listed. A simple statement that includes the photogrammetric manuscript number, date of photography, and date of field edit is sufficient.
3. The following surveys were not included in the verifier's report under "Comparison with Prior Surveys." The comparison between these surveys and the present survey was made during quality control inspection.

A. H-4743a (1923-24) 1:20,000

Prior and present survey depths are in substantial agreement. The small shoal with least depths of 18-20 fathoms in latitude 18°14.65', longitude 64°54.85' on H-4743a was disproved on the present survey and should be disregarded.





The present survey is adequate to supersede the prior survey within the common area.

|    |                     |                  |                 |
|----|---------------------|------------------|-----------------|
| B. | H-4599 W.D.         | (1925)           | 1:40,000        |
|    | <u>H-4743b W.D.</u> | <u>(1923-26)</u> | <u>1:20,000</u> |

No conflicts exist between the effective depths of these wire-drag surveys and depths on the present survey.

4. The verifier mistakenly considered hydrographic survey H-9270 (1967) as a prior survey under paragraph 6, "Comparison with Prior Surveys," in the verifier's report. The Project Instructions called for a junction to be made between the present survey and H-9270 (1967). An adequate junction was effected between these two surveys during quality control inspection.

5. The least depth and position of Presurvey Review Item No. 3 were erroneously plotted on the smooth sheet. The correct position and re-scanned least depth were taken from the field records and replotted during quality control inspection.

6. The origin of the charted hydrography was not always adequately identified. Many soundings listed in the verifier's report as originating with British Admiralty charts actually originated with the prior surveys and/or boat sheet of the present survey. Where possible, the chart used by the verifier for his comparison should be the same edition as that used by the hydrographer and should be sent forward with the survey records. Refer to section 6.3.10 of the Provisional Manual.

7. Two soundings, 71 feet in latitude  $18^{\circ}15.78'$ , longitude  $64^{\circ}56.67'$ , and 67 feet in latitude  $18^{\circ}16.92'$ , longitude  $65^{\circ}01.2'$ , from H-4651b W.D. (1924-27) were brought forward during quality control inspection to provide the least depths on two features.

cc:  
C351

Reg. No. 9273

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey the following shall be completed:

CARDS CORRECTED

DATE \_\_\_\_\_ TIME REQ'D \_\_\_\_\_ INITIALS \_\_\_\_\_

REMARKS:

Reg. No. H-9273

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE 9-30-82 TIME REQ'D. 20H INITIALS JAC

REMARKS:

# Velocity Table #5, Ship Whiting, H-9273

000023 0 0000 0005 000 293000 009273

000058 0 0002

000098 0 0004

000137 0 0006

000177 0 0008

000217 0 0010

000257 0 0012

000295 0 0014

000334 0 0016

000373 0 0018

000412 0 0020

000451 0 0022

000497 0 0024

000527 0 0026

000568 0 0028

000607 0 0030

000645 0 0032

000684 0 0034

000724 0 0036

000764 0 0038

000803 0 0040

000840 0 0042

000878 0 0044

000917 0 0046

000956 0 0048

P.O. CHECKED BY E. Cram  
DATE Oct 9, 1974  
VERIFICATION BR., AMC

Tc/Ti LAUNCH 2

WH-20-1-72, H-9273

124900 0 0000 0006 077 293200 009273

P.O. CHECKED BY R. Cram  
DATE Oct 5, 1979  
VERIFICATION BR., AMC

# Velocity Table #3 Ship Whiting H-9273

000012 0 0000 0003 000 293000 009273

000064 0 0002

000104 0 0004

000146 0 0006

000184 0 0008

000224 0 0010

000264 0 0012

000305 0 0014

000344 0 0016

000384 0 0018

000423 0 0020

000463 0 0022

000502 0 0024

000542 0 0026

000582 0 0028

000622 0 0030

000663 0 0032

000703 0 0034

000743 0 0036

000783 0 0038

000823 0 0040

000864 0 0042

000904 0 0044

000944 0 0046

000984 0 0048

001024 0 0050

001064 0 0052

001104 0 0054

P.O. CHECKED BY L. Cram  
DATE Oct 9, 1979  
VERIFICATION DR., AMC

Velocity Table #3 Cont. WHITING H. 9273

001143 0 0056

001183 0 0058

001638 0 0060

001938 0 0072

002238 0 0084

002538 0 0096

002832 0 0108

003132 0 0120

003438 0 0132

003738 0 0144

004032 0 0156

004332 0 0168

004644 0 0180

004944 0 0192

005238 0 0204

005538 0 0216

005738 0 0228

006390 0 0240

007110 0 0270

007860 0 0300

008610 0 0330

009360 0 0360

010110 0 0390

999999 0 0000

P.O. CHECKED BY R. Cram

DATE Oct 9, 1974

VERIFICATION BR., AMC

Velocity Table # 5, Ship Whiting, H-9273 Cont.

000996 0 0050

001638 0 0060

001938 0 0072

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